

FTC Big Data: A Tool for Inclusion or Exclusion? Workshop  
September 15, 2014  
Segment 1  
Transcript (rough version – final version to be posted later)

>> GOOD MORNING AND  
WELCOME.

WE'RE GOING TO GET STARTED IN  
JUST A COUPLE OF MINUTES SO  
PLEASE TAKE YOUR SEATS.  
GOOD MORNING, GOOD MORNING.  
HOPE YOU ALL ARE ENJOYING YOUR  
CONVERSATIONS.  
WE'RE GOING TO GET STARTED IN A  
COUPLE OF MINUTES SO PLEASE TAKE  
YOUR SEATS.  
THANK YOU.

>> GOOD MORNING.  
IT'S A FEW MINUTES AFTER 9:00 SO  
WE'RE GOING TO GO AHEAD AND GET  
STARTED.  
PLEASE STAY YOUR SEATS.  
MY NAME IS TIFFANY GEORGE AT THE  
FEDERAL TRADE COMMISSION.  
WELCOME TO THE WORKSHOP, BIG  
DATA.

BEFORE WE GET STARTED I HAVE A  
FEW HOUSEKEEPING ITEMS.  
ANYONE WHO GOES OUTSIDE OF THE  
BUILDING WITHOUT AN FCC BADGE  
YOU'RE REQUIRED TO GO TO THE  
[INAUDIBLE]

>> ACROSS FROM FCC IS THE HUD  
BUILDING.

LOOK TO THE RIGHT SIDEWALK.  
EVERYONE WILL RALLY BY FOUR.  
YOU NEED TO CHECK IN WITH A  
PERSON TO CHECK INTO THE  
AUDITORIUM.

YOU WILL BE TOLD WHERE TO GO.  
A[INAUDIBLE]

THIS EVENT MAY BE PHOTOGRAPHED,  
VIDEO GRAPHED, WEBCAST OTHER  
OTHERWISE RECORDED.

BY PARTICIPATING IN THIS EVENT  
YOU ARE AGREEING THAT YOUR IMAGE

AND ANYTHING THAT YOU SAY OR COMMENT MAY BE PERMITTED ON FCC.GOV OR SOCIAL MEDIA.

THE CAFETERIA IS LOCATED INSIDE OF THIS BUILDING AND THE OPERATING HOURS ARE FROM 7:30 A.M. -- PLEASE NOTE THERE ARE NO BEV RIDGES ALLOWED INSIDE THE AUDITORIUM.

REMEMBER TO PLEASE SILENCE YOUR DEVICES.

WITH THAT I WOULD LIKE TO INTRODUCE EDITH RAMIREZ WHO WILL MAKE OPENING REMARKS.

>> THANK YOU TIFFANY AND I WANT TO THANK EVERYONE FOR JOINING US HERE TODAY AND FOR OUR WORKSHOP, BIG DATA, A TOOL FOR INCLUSION FOR EXCLUSION.

AND I ALSO WANT TO TAKE THIS OPPORTUNITY TO THANK TIFFANY GEORGE'S WELL AS ALL OF THE OTHER FTC STAFF MEMBERS WHO WORKED HARD TO ORGANIZE TODAY'S EVENT AND ALSO TO THAT SPEAKERS FOR SHARING THEIR EXPERTISE WITH US.

WE'RE AT A BRITTLE STAGE IN THE INFORMATION AGE.

THANKS TO SMARTPHONES AND DEVICES, SOCIAL MEDIA CONNECTED CARDS AND RETAIL LOYALTY CARDS EACH OF US IS GENERATING DATA AT AN UNPRECEDENTED RATE.

IN 2013 IT WAS RECORDED THAT AN ASTONISHING 30% OF THE WORLD'S DATA WAS GENERATED IN THE PREVIOUS TWO YEARS.

THE AMOUNT OF DATA IS DOUBLING EVERY TWO YEARS.

ADVANCES IN COMPETITION AND STATISTICAL METHODS MEANS THIS MASS OF INFORMATION CAN BE EXAMINED TO IDENTIFY CORRELATIONS, MAKE PREDICTIONS, DRAW INFERENCES AND GLEAN NEW

INSIGHTS.

THIS IS BIG DATA.

IT HAS THE CAPACITY TO SAVE LIVES, IMPROVE EDUCATION, ENHANCE GOVERNMENT SERVICES, INCREASE MARKETPLACE EFFICIENCY AND BOOST ECONOMIC PRODUCTIVITY.

THE SAME ANALYST POWER THAT MAKES IT EASIER TO PREDICT THE OUTBREAK OF A VIRUS, IDENTIFY WHO IS LIKELY TO SUFFER A HEART ATTACK OR IMPROVE THE DELIVERY OF SOCIAL SERVICE ALSO HAS THE CAPACITY TO REINFORCE THE ADVANTAGES FACED BY LOW-INCOME AND UNDERSERVED COMMUNITIES.

AS BUSINESSES SEGMENT CONSUMERS TO DETERMINE WHAT PRODUCTS ARE MARKETING TO THEM, THE PRICES THEY ARE CHARGED, AND THE LEVEL OF CUSTOMER SERVICE THEY RECEIVE, WORRY IS THAT EXISTING DISPARITIES WILL BE EXACERBATED.

IS THIS DISCRIMINATION?

IN ONE SENSE, YES.

BY ITS NATURE THAT'S WHAT BIG DATA DOES IN THE COMMERCIAL SPHERE.

IT ANALYZES VAST AMOUNTS OF INFORMATION TO DIFFERENTIATE DATA AT BLINDING SPEED.

BUT IS IT UNFAIR OR BIASED OR ILLEGAL DETERMINATION?

IF SO CAN STEPS BE TAKEN TO LEVEL THE PLAYING FIELD?

THOSE ARE THE QUESTIONS THAT WE WILL BE EXPLORING TODAY.

BIG DATA AND ITS 21<sup>st</sup> CENTURY FORM IS IN ITS EARLY STAGE.

WE HAVE THE ABILITY TO SHAPE ITS DEVELOPMENT AND ITS OUTCOME.

IF WE ARE ALERT TO THE RISK ALERTED BY BIG DATA YOU CAN TAKE STEPS TO GUARD AGAINST THEM.

YOU CAN HELP ENSURE BIG DATA CAN BE A TOOL FOR ECONOMIC

INCLUSION, NOT EXCLUSION.  
THAT'S THE WEIGHTY SUBJECT  
BEFORE US TODAY.  
SO BEFORE WE BEGIN THE  
DISCUSSION I WOULD LIKE TO  
ADDRESS THREE QUESTIONS.  
FIRST HOW DID WE GET HERE?  
SECOND WHAT IS OUR AIM WITH  
TODAY'S PROGRAM?  
AND FINALLY, WHERE DO WE GO FROM  
HERE.  
LET ME START BY TACKLING THE  
FIRST QUESTION, HOW DID WE GET  
HERE?  
LITERALLY, WHATEVER MODE OF  
TRANSPORTATION THAT YOU USE TO  
GET TO THIS WORKSHOP THAT WE'RE  
AT, THERE WERE CONNECT THE  
DEVICES AVAILABLE TO ASSIST YOU.  
THOSE WHO CAME HERE YOU THINK  
PUBLIC TRANSPORTATION, IT COULD  
TELL YOU WHEN THE NEXT CAR WOULD  
ARRIVE.  
IF YOU CAME BY CAR YOU HAVE TO  
RTALTIME TRAFFIC ALERTS OR ALLOW  
YOU TO SUMMON A TAXI BY TAPPING  
ON A SMARTPHONE APP.  
AND BY VIRTUE OF USING BIKE YOU  
CAN USE A WEARABLE DEVICE TO  
CALCULATE ROUTE OF TRAVEL AND  
CALORIE BURN.  
NO MATTER YOUR ROUTE OF  
TRANSPORTATION, AN APPLE WEB  
SITE MAY HAVE HELPED YOU FIND A  
SPOT NEARBY TO BUY A CUP OF  
COFFEE BEFORE ARRIVING AT THE  
WORKSHOP.  
THESE VARIOUS DEVICES AND  
SERVICES THAT HELPS MANY OF US  
GET HERE PHYSICALLY ARE ALSO  
WHAT BROUGHT US HERE  
FIGURATIVELY.  
POPULARITY OF SMARTPHONES AND  
OTHER MOBILE DEVICES, THE ARRAY  
OF MOBILE APPS THAT WE HAVE OUR  
OUR FINGERTIPS, MEANS THAT

COUNTLESS INDIVIDUALS ACTIVELY AND PASSIVE I HAD GENERATE INFORMATION IN AN EFFICIENT ECOSYSTEM THROUGHOUT THE DAY. THE PROLIFERATION OF CONNECTED DEVICES, THE COLLECTIVE COST OF COLLECTING STORING AND PROCESSING INFORMATION, THE DATA BROKERS AND OTHERS COMBINE ONLINE AND OFFLINE DATA MEANS COMPANIES CAN ACCUMULATE VIRTUALLY UNLIMITED AMOUNTS OF INFORMATION AND STORE IT INDEFINITELY: USING PREDICTIVE ANALYTICS YOU CAN LEARN A SURPRISING AMOUNT, EACH OF US, FROM THIS DATA.

YOU CAN UNLOCK THE DATA FROM IMMENSE DATA SETS ALLOWS YOU TO MAKE CORRELATIONS AND THIS RACES THE PROSPECT OF DIFFERENTIAL TREATMENT OF LOW INCOME AND UNDER SERVED POPULATIONS.

THESE RISKS ARE ADJUSTED BY THE COMMISSION'S RECENT REPORT ON THE DATA BROKER INDUSTRY.

THE COMMISSION'S STUDY OF CROSS-SECTION OF NINE DATA BROKERS REVEAL THE DATA BROKERING A DPREG GATE ONLINE AND OFFLINE DATA FROM DISPARATE SOURCES, MAKE INFERENCES ABOUT CONSUMER'S ETHNICITIES, INCOME, RELIGION, AGE, AND HEALTH CONDITIONS, MORNING OTHER CHARACTERISTICS.

THE FTC AND OTHERS HAVE FOUND SOME BROKERS CREATE SEGMENTS OR QUESTIONS OF DURUMS WITH CONSUMERS WITH HIGH NUMBERS OF MINORITY OR LOW INDIVIDUALS.

>> THERE MAY BE BUSINESSES WOULD -- [INAUDIBLE]

>> DISCRIMINATION BY ALGORITHM OR DIGITAL REDLINING.

THERE ARE NOW PRODUCTS BEYOND TRADITIONAL CREDIT SCORES THAT

SUPPORT OR SCORE EVERYTHING FROM  
THE TRANSACTIONS TO THE DISAUDIO  
DISTORTED]

(AUDIO DISTORTED]

>> DESPITE HAVING IMPACT ON  
CONSUMER'S IMPACT TO CREDIT,  
HOUSING, EMPLOYMENT AND  
INSURANCE.

FOR EXAMPLE, IF A COMPANY LOWERS  
MY CREDIT LIMIT BASED ON A SCORE  
THAT REFLECTS MY OWN CREDIT  
HISTORY, I WOULD BE ENTITLED TO  
CERTAIN PROTECTIONS UNDER THE  
FDRA.

IF THE SAME COMPANY LOWERS MY  
CREDIT LIMIT BASED ON THE SCORES  
WHICH I AM A MEMBER, THE  
DIRECTION MAY BE LESS CLEAR.

COULD THESE SCORES BE USED TO  
INFLUENCE THE OPPORTUNITIES OF  
HOE INCOME, MINORITY OR OTHER  
POPULATION TO GET CREDIT, JOBS,  
HOUSING, OR INSURANCE IN WAYS  
THAT FALL OUTSIDE OF THE  
PROTECTION OF THE FCRA OR COA?  
COULD THE USE OF GEOGRAPHIC  
INFORMATION LIKE ZIP CODES LEAD  
TO AMERICANS IN LOW INCOME  
NEIGHBORHOODS BEING CHARGED  
HIGHER PRICES?

AND IF SO, IS THIS A WORRISOME  
FUNCTION OF BIG DATA OR JUST A  
CONTINUATION OF AGE OLD PRICING  
PRACTICES AND MARKET FORCES.  
THESE AND OTHER ISSUES FIGURED  
PROMINENTLY IN THE WHITE HOUSE'S  
REPORT ON BIG DATA WHICH RACED  
THE CONCERN THAT LARGE SCALE  
ANALYTICS WOULD BE USED FOR  
DISPARATE OR DISCRIMINATORY  
OUTPUT FOR CONSUMERS.

IF THESE QUESTIONS OR CONCERNS  
RAISED BY THE PRIOR INITIATIVES  
THAT BRING US TO TODAY'S  
PROGRAM.

ENTER MY SECOND QUESTION: WHAT

IS OUR GOAL TODAY? WE WILL EXPLORE WHETHER AND HOW BIG DATA HELPS INCLUDE OR EXCLUDE CONSUMERS FROM OPPORTUNITIES IN THE MARKETPLACE.

TO HELP SHED LIGHT WE CONVENED EXPERTS FROM INDUSTRY, CONSUMER AND CIVIL RIGHTS GROUPS, THE GOVERNMENT, ALL REPRESENTING A WIDE VARIETY OF PERSPECTIVES.

THE PANELISTS AND SPEAKERS WILL PROVIDE A FRAMEWORK FOR OUR CONVERSATION TODAY, ASSESS BIG DATA CURRENT PRACTICES IN THE PRIVATE SECTOR, DISCUSS POSSIBLE DEVELOPMENTS ON THE HORIZON, PRESENT FURTHER RESEARCH AND OTHER WAYS TO ENSURE BIG DATA IS A FORCE FOR ECONOMIC INCLUSION. MY HOPE IS THAT OUR PARTICIPANTS WILL DISCUSS IN-DEPTH OF RISK OF BIG DATA TO LOW INCOME AND UNDERSERVED POPULATIONS.

ON THE BENEFITS SIDE, LET ME START THE DISCUSSION WITH ONE EXAMPLE.

NO, IS DEVELOPING A TOOL THAT COMBINES DATA WITH DATA TO PREDICT WHEN INDIVIDUALS OR FAMILIES ARE ON THE BRINK OF HOMELESSNESS.

USING THIS INFORMATION, THE CITY IS ABLE TO DEPLOY SOCIAL WORKERS TO PREVENT THEM FROM ENDING UP ON THE STREET.

THIS IS AN CITY OF POSITIVE GOVERNMENT USE RATHER THAN A BUSINESS USE BUT I HOPE OUR SPEAKERS WILL PROVIDE EXAMPLES SHOWING HOW COMPANIES CAN ALSO USE BIG DATA TO PREVENT THOSE IN LOW INCOME POPULATIONS.

AND AS FAR AS REAL WORLD RISKS LET ME CITE A STUDY FROM TONYA SWEENEY, HERE THE COMMISSION'S CHIEF OF POLICY.

SHE FOUND RESEARCHERS WERE 25% MORE LIKELY TO PRODUCE AN AD SHOWING A PERSON HAD A ARREST RECORD.

THIS COULD HAVE DEVASTATING CONSEQUENCES FOR JOB SEARCHERS. RESEARCH DID NOT ESTABLISH WHY THE ALGORITHM REVEALED THIS RESULTS IT DOES PROVIDE A CONCRETE EXAMPLE OF HOW AN TBRISM MAY HAVE ADVERSE REPERCUSSIONS BY A PARTICULAR POPULATION.

I EXPECT WE WILL HEAR MORE ILLUSTRATIONS TODAY INCLUDING FROM PROFESSOR SWEENEY WHO WILL PRESENT THE RESULTS THAT ARE MORE RECENT.

AFTER WE CONCLUDE OUR WORKSHOP, THE QUESTION NATURALLY ARISES WHERE DO WE GO FROM HERE? YOU MAY ALL HAVE AN ARRAY OF APPS TO GUIDE US HOME THIS AFTERNOON.

THERE'S NO CLEAR PATH FOR NAVIGATING THE USE OF BIG DATA AND THE WAY IT ADVANCES OPPORTUNITIES FOR ALL CONSUMERS WHILE DIMINISHING DIFFERENTIAL IMPACT ON VULNERABLE POPULATIONS.

WE MAY NOT YET KNOW WHAT THE BEST COURSE OUGHT TO BE BUT I BELIEVE WE SHOULD HAVE THREE OBJECTIVES GOING FORWARD.

BIG DATA MAY VITAL LOCAL LAW. WEB SITE THAT PROMOTE BACKGROUND CHECKS FOR EMPLOYEES.

9FTC ALLEGED INSTANT CHECK MATE DID SO WITHOUT REGARD FOR THE FCRA AND WE OBTAINED A \$25,000 FINE AND PERMANENT INJUNCTION AGAINST THE COMPANY.

IN ADDITION TO HELPING THE FTC AND OTHERS TO ENFORCE EXISTING LAWS TODAY'S PROGRAM SHOULD HELP



IDENTIFY ANY GAP IN THE CURRENT LAW AND WAYS TO BUILD THEM. SECOND, WE NEED TO BUILD AWARENESS WITH THE POTENTIALLY FOR BIG DATA PRACTICES TO HAVE A DETRIMENTAL IMPACT ON LOW INCOME AND UNDERSERVED POPULATION. I WOULD LIKE TODAY'S PROGRAM TO SPONSOR A DISCUSSION ABOUT ETHICAL OBLIGATION, AS STORED INFORMATION DETAILING EVERY FACET OF CONSUMERS' LIVES. THIRD, AND RELATEDLY, WE SHOULD ENCOURAGE BUSINESSES TO GUARD AGAINST BIAS WITH ABOUT IMPACT ON LOW INCOME POPULATIONS IN DESIGNING THEIR ALGORITHMS AND PREDICTIVE PRODUCTS. A GOOD EXAMPLE IS DEVELOPING THE STREET -- BOSTON HAS A CHALLENGE FACING STREET REPAIRS. TO HELP ADDRESS THE ISSUE THE STREET RELEASED AN APP TO IDENTIFY POTHOLES IN NEED OF REPAIR. THE CITY ALSO RECOGNIZED THAT BECAUSE LOWER INCOME INDIVIDUALS ARE LESS LIKELY TO CARRY SMARTPHONES DATA MIGHT SKEW RODE SERVICES IN NEIGHBORHOODS. THEY INSTRUCTED CONTRACTORS TO DISTRIBUTE SERVICES TO THE CITY EQUALLY. TO ILLUSTRATE HOW CONSIDERATION OF RISKS BEFORE LAUNCHING A PRODUCT OR SERVICE. [INAUDIBLE] SO BIG DATA CAN HAVE BIG CONSEQUENCES. THOSE CONSEQUENCES ARE EITHER ENORMOUSLY BENEFIT FOR INDIVIDUALS WHO ARE EQUALLY DETRIMENTAL. IT WILL ALMOST CERTAINLY BE A MIXTURE OF THE TWO. BUT IT'S THE RESPONSIBILITY OF

THE FTC AND OTHERS TO HELP  
ENSURE THAT WE MAXIMIZE THE  
POWER OF BIG DATA WITH THE  
CAPACITY FOR GOOD WHILE  
IDENTIFYING AND MINIMIZING THE  
RISK IT REPRESENTS.

AS WE NAVIGATE THE  
TRANSFORMATIVE TERRAIN OF BIG  
DATA IT'S VITAL THAT WE ENSURE  
THE BENEFITS ARE FOR ALL  
CONSUMERS REGARDLESS OF THEIR  
BACKGROUND.

IM LOOK FORWARD TO HEARING THE  
THOUGHTS AND IDEAS OF PANELISTS  
ON HOW TO DO JUST THAT AND I  
THANK YOU ALL FOR YOUR  
CONTRIBUTION TO THAT ENDEAVOR.

[ APPLAUSE ]

LET ME HAND IT BACK TO TIFFANY.

>> WE HAD, NOW, BEGIN WITH THE  
FIRST PRESENTATION, FRAME BEING  
THE CONVERSATION, WHICH WILL BE  
LED BY SOLON BAROCAS, A RESEARCH  
ASSOCIATE AT PRINCETON  
UNIVERSITY CENTER FOR  
INFORMATION TECHNOLOGY POLICY.

>> GOOD MORNING.

I REALLY APPRECIATE THE  
OPPORTUNITY TO SPEAK TO YOU ALL.  
I AM SOLON BAROCAS.

I AM PRESENTING A WAY OF  
FRAMING THE CONVERSATION AND  
GOING FORWARD, AND DRAW ON THE  
WORK THAT I HAVE BEEN DOING AND  
I ENCOURAGE PEOPLE WHO ARE  
INTERESTED TO LOOK AT MY WEB  
SITE AND FIND THIS PAPER IF YOU  
WANT TO FOLLOW ALONG WHILE I  
PRESENT IN DETAIL.

LET ME BEGIN.

OK.

SO BIG DATA, WE COME, I THINK,  
TO KNOW THIS THREE D'S AS A  
DEFINITION, THE VOLUME OF DATA  
AND THE VOLUME, VELOCITY AND  
VARIETY OF DATA.

I CAN FOCUS ON THE TRADITIONAL CATEGORIES IN THE SOCIAL SCIENCES, OBSERVATIONAL DATA, WHAT WE CALL SELF REPORTED OR USER GENERATED DATA.

WHAT I MEAN IS THAT THERE ARE THREE THINGS HAPPENING HERE WITH INTERESTING CONSEQUENCES FOR CONSUMER PROTECTION.

ONE IS THAT THERE ARE MANY MORE WAYS TO OBSERVE CONSUMERS AND CONSUMER BEHAVIOR, THINGS LIKE TRANSACTIONAL DATA, AND THINGS LIKE MOBILE PHONE AND VARIOUS TECH DEVICES AND USER GENERATED DATA WITH THE VAST VARIETY OF SOCIAL MEDIA PEOPLE USE AND FINALLY EXPERIMENTAL, WHICH HAS BECOME MORE FAMILIAR TO PEOPLE IN THE WAKE MUCH THE EXPERIMENT AND WHAT I MEAN BY THAT IS THERE ARE NOW PLATFORMS UPON WHICH TO PERFORM THE LARGE SCALE EXPERIMENT IN THE WILD AND WAYS THAT -- I THINK THESE ARE THE USUALLY WAYS.

FOR OUR PURPOSES TODAY I'M GOING TO FOCUS ON WHAT I CALL DATA AMINING.

THIS IS MORE PREVALENT IN THE ACADEMY WHICH IS WHAT WE CALL MACHINE LEARNING WHICH IS A KIND OF -- IN TODAY'S -- IT'S DEVOTED TO THE ANALYSIS OF LARGE DATA SETS.

I FOCUS ON THIS BECAUSE I THINK OUR PURPOSES TODAY, IT IS AN ANALYSIS AND USE OF THE DATA THAT IS INTERESTING, PROPS LESS THE TECHNICAL CHALLENGES AT ARRANGE -- THE REMAINDER OF MY TALK WILL FOCUS SPECIFICALLY ON THE ANALYTICAL TECHNIQUES AND THE TROUBLES FOR US -- (AUDIO DISRUPTIONS ).

>> DATA MEANING IS AUTOMATING

THE PROCESS OF DISCOVERING  
USEFUL PATTERNS AND REGULATORS  
UPON WHICH SUBSEQUENT  
DECISION-MAKING CAN RELY.  
BY LEARNING MEANS I LEARN FROM  
THE PREVIOUS EXAMPLES THERE'S  
SOME GENERAL TREND, SOME  
RELATIONSHIP IN THE DATA THAT I  
IMAGINE WILL HOLD IN THE FUTURE  
AND I CAN USE THAT AS A WAY TO  
MAKE INFERENCES AS MENTIONED  
EARLIER.

>> ALSO I WOULD POINT OUT WITHIN  
THE FIELD THERE'S AN ACCUMULATED  
SET OF RELATIONSHIPS WITHIN THE  
DATA THAT IS COMMONLY REFERRED  
TO -- YOU MIGHT HAVE HEARD THE  
TERM PREDICTIVE MODEL AND THAT  
REFERS TO ALL OF THE VARIOUS  
BENEFITS OF LARGE DATA THAT  
INFORM PEOPLE'S DECISION MAKING  
AND THESE MODELS CAN BE USED IN  
A VARIETY OF WAYS.

TO BEGIN WITH THEY CAN BE USED  
TO CLARIFY ENTITIES.

THE MOST COMMON EXAMPLE IS SPAM.  
THE EXCITE WEB MAIL CAN MAKE A  
DECISION ON WHETHER YOUR MAIL IS  
SPAM OR NOT AND USE THE RULES  
BASED ON THE HISTORY OF EXAMPLES  
THAT IT HAS.

LIKEWISE IT CAN ESTIMATE THE  
VALUE OF UNDERSERVED ATTRIBUTES  
AND PROJECT INCOME AND MAKE  
PREDICTIONS PANT WHAT YOU'RE  
LIKELY TO DO FOR FUTURE  
BEHAVIOR.

AND YOU MIGHT SAY, AS RAILROAD  
MENTIONED THAT, OF COURSE, DATA  
MINING IS DISCRIMINATORY, THE  
VERY INTENT IS TO DIFFERENTIATE  
AND INVOLVE DISTINCTIONS.

AND IT IS A STATISTICAL FORM OF  
DISCRIMINATION THAT IS ALMOST BY  
NECESSITY, A RATIONAL ONE  
BECAUSE IT'S BEING DRIVEN BY A

PARENT SET OF DATA.

THIS IS NOT THE CASE OF -- THIS IS IN FACT EVIDENCE SUGGESTING THAT A RELIABLE PATTERN OF DATA AND USING THAT, YOU CAN DEFER TO INDIVIDUALS THOSE QUALITIES THAT HAPPEN TO BE SIMILAR TO THOSE WHO APPEAR -- SO IF I RESIDE IN A ONE PARTICULAR CATEGORY THAT HAS BEEN REVEALED BY THE ANALYSIS, THEY CAN IMPUTE TO ME THOSE SAME QUALITIES E.

>> WE WILL FOCUS ON THE FIVE PART TAX ON ME WHICH IS ME TRYING TO SWAY HOW THE PROCESS OF MINING DATA LENDS ITSELF TO A VARIETY OF ISSUES THAT CAN RAISE CONCERNS OF DISCRIMINATIONAL TECHNICAL TERM IS TARGET VARIABLES.

[INAUDIBLE]?

>> IS IT THE ONE I CAN EXTRACT THE MOST PROFIT OR HAVE A LONG-TERM RELATIONSHIP WITH OR THE ONE I PROVIDE AN INDUCEMENT TO STAY A CUSTOMER?

THERE'S NO WAY TO AVOID THE PROCESS.

YOU NEED A DEFINABLE WAY TO SHOW WHAT YOU'RE LOOKING FOR SO MINING DATA BEGINS WITH HAVING TO ESTABLISH SOME TRANSLATION FROM A BUSINESS, PROBLEM, ISSUE OR A PROBLEM THAT IS FROM A PARTICULAR VALUE OF THIS TARGET VARIABLE.

IN GENERAL THE CREATIVE WORK INVOLVES THIS PROCESS --

>> BY PREDICTING THE TARGET VARIABLE.

AND I THINK HERE WHAT IS INTERESTING IS THAT THE WAY THAT THE BUSINESS GOES ABOUT DEFINING THE TARGET VARIABLE CAN HAVE SERIOUS CONSEQUENCES FOR WHETHER OR NOT THE DATA MINE PROCESS HAS

A DISPARATE IMPACT.

IN MY OWN -- YOU MIGHT SAY THAT TRYING TO PREDICT WHETHER OR NOT THIS IS GOING TO BE DISSOCIATIVE -- (OVERLAPPING CONVERSATIONS ON THIS LINE ).

>> THESE WILL HAVE DISPARATE CONVERSATIONS.

>> MUTE YOUR PHONE.

>> PLEASE MUTE YOUR PHONES.

>> THE SET OF EXAMPLES THAT YOU LOOK AT TO DECIDE IF THERE ARE PATTERNS FOR DECISION MAKING. AND I THINK IN THIS CASE THERE ARE TWO RELATED PROBLEMS WITH DATA THAT CAN HAVE CONSEQUENCES. ONE IS THAT THE SET OF EXAMPLES CAN BE SKEWED AND THE SECOND IS THAT THE EXAMPLE THAT YOU DRAW ON CAN BE IN SOME WAY TAINTED BY A PRIOR PREJUDICE.

LET ME WALK THROUGH THIS A BIT. WHEN YOU HAVE EXAMPLES, THE ONLY WAY THE RULE ACTUALLY GENERALIZES FUTURE CASES IS THAT THE PREVIOUS SET OF CASES, PARTICULAR SET OF EXAMPLES HAPPENS TO BE REPRESENTATIVE OF FUTURE CASES. FROM THE CASE, WE KNOW THIS IS NOT ALWAYS THE CASE.

EVEN MORE INTERESTINGLY, I THINK, OFTEN TIMES COMPANIES ARE IN THE POSITION OF OR OFTEN SEEKING WAYS TO TRY TO CHANGE THE COMPOSITION OF THE CUSTOMER BASE SUCH THAT TO SUGGEST THAT YOU CAN FOLLOW GENERAL RULES FROM CUSTOMER BASE YOU'RE PURPOSEFULLY CHANGING SHOULD PUT IN TO DOUBT THE IDEA THIS IS REPRESENTATIVE DATA.

THAT WE'RE DEALING WITH A SUBSET OF ALL POSSIBLE CUSTOMERS, POTENTIAL SUBSET CHANGES OVER TIME.

ALSO POINT OUT, I THINK, THAT

THE REASON WHY THAT IT'S  
UNLIKELY TO BE REPRESENTATIVE IN  
CERTAIN CASES, TO BEGIN WITH  
MIGHT BE THAT CERTAIN  
POPULATIONS ARE INVOLVED IN THE  
ECONOMY, IN VARIOUS MECHANISMS  
INVOLVED, YOU MIGHT HAVE UNEQUAL  
ACCESS.

>> CAN PEOPLE LISTENING IN MUTE?

>> ONGOING OBSERVATION, I THINK  
OFTENTIMES UNDER OR OVER  
REPRESENTATION IS NOT ALWAYS  
EVIDENT. SOMETIMES IT APPEARS  
AS OBSERVATION, YOU MIGHT HAVE

--

[INAUDIBLE]

YOU CAN ALSO SAY, THEN, THAT YOU  
HAVE AN EXAMPLE, ALSO SUGGESTS  
THE COMPANY SHOULD BE DEVOTING  
ATTENTION

[INAUDIBLE]

YOU HAVE LESS AND LESS  
OPPORTUNITY.

[INAUDIBLE]

CREDIT SCORING, WHERE THE  
INDUSTRY IS --

>> COULD PEOPLE ON THE PHONE  
PLEASE MUTE.

>> WHAT IS A GOOD CUSTOMER AND  
WHAT IS A BAD CUSTOMER?

I MENTIONED THE EXAMPLES.

LET ME GO THROUGH EXAMPLES.

[INAUDIBLE]

FALL ON THE HISTORY OF THE  
DECISION TO AUTOMATE THE  
PROCESS.

IT HAD TO FIND NEW WAYS OF  
FINDING WHAT IS A GOOD TARGET OR  
CREDIT.

WHAT THIS REVEALS IS ANY  
DECISION THAT USES PAST AS A  
BASIS FOR INFORMING RULES MUST  
BE SENSITIVE TO THE FACT THOSE  
DECISIONS MIGHT BE TAINTED.

FINALLY, WE CAN POINT OUT, THEN,  
IT'S NOT ONLY THE CASE DATA

MINING CAN CONTINUE TO REFLECT PERSISTENCE OF PREJUDICE IN BEHAVIOR TAKEN AS INPUT FOR SOME MODELS AND THIS IS A WAY OF CATEGORIZING SOME WORK, SHOWING THEN THAT ALGORITHM IS REFLECTED IN THE SYSTEM.

THIS IS THE PROCESS OF DECIDING WHAT VARIABLES, WHAT CRITERIA ASSOCIATED WITH EACH PERSON WILL YOU ACTUALLY FOLD IN TO YOUR ANALYSIS.

HERE AGAIN I THINK THIS IS AN INTERESTING ISSUE BECAUSE YOU WOULD IMAGINE THAT BIG DATA PRESENTS OPPORTUNITY TO VASTLY INCREASE AMOUNT OF FUTURES AND VARIABLES TO CONSIDER.

OF COURSE THE ADDITION OF ADDITIONAL, ADDING ADDITIONAL FEATURES TO ANALYSIS CAN OFTEN BE COSTLY.

IT MAY WELL BE THAT YOUR ANALYSIS DOES VERY WELL WHEN CONSIDERING CERTAIN SET OF FEATURES, BUT DOESN'T DO PARTICULARLY WELL FOR OBSERVATION BECAUSE IT DOESN'T CARVE OUT THE POPULATION.

RED LINING IS A TRADITIONAL EXAMPLE, USING NEIGHBORHOOD ALONE AS A WAY TO DECIDE.

CREDIT IS A COARSE WAY OF MAKING THAT DETERMINATION.

GOES THE STILL POSSIBLE ADDITIONAL DATA WOULD BE USEFUL IN DRAWING DISTINCTION FOR PARTICULARLY MARGINALIZED POPULATIONS.

THAT SIMPLY MIGHT BE COSTLY, VERY DIFFICULT TO OBTAIN THAT INFORMATION.

I QUESTION JUSTED TYING THIS TO COSTING ADDITIONAL MONEY OR RESOURCES TO GAIN THAT KIND OF INFORMATION, JUSTIFYING THIS.



PROXIES REFERS TO THE FACT  
OFTENTIMES MANY

[INDISCERNIBLE]

WHAT'S WORRISOME, THEN, IS THAT  
YOU CAN SEE THIS IS SIMPLY  
REFLECTING THE FACT INEQUALITY  
IN SOCIETY, PARTICULAR  
INEQUALITY WHERE MEMBERS ARE  
HISTORICALLY MARGINALIZED,  
CLASSES ARE DISPROPORTIONATELY  
IN A LESS STABLE POSITION.  
FREE DATA IS POTENTIALLY FURTHER  
EXPOSING THE EXTENT OF THAT  
INEQUALITY.

IN THE INTEREST OF TIME WE'LL  
JUMP OVER THIS.

THE FINAL PART IS MASKING, WHICH  
REFERS TO THE IDEA IT IS  
POSSIBLE TO MASK INTENTIONAL  
DISCRIMINATION BY THE LINES  
IDENTIFIED HERE.

DECISION MAKERS ADDITIONALLY CAN  
RELY ON DATA MINING TO INFER  
WHETHER OR NOT YOU BELONG TO A  
SECOND CLASS AND THAT  
INFORMATION IS SECRET, IT IS  
MADE AGAINST YOU.

I WANT TO EMPHASIZE, THIS IS ONE  
OF THE MOST IMPORTANT POINTS  
I'LL MAKE TODAY, THAT  
UNINTENTIONAL DISCRIMINATION IN  
THE FIRST FOUR PARTS,

[INAUDIBLE]

THE PROBLEM WOULD POSE SERIOUS  
ISSUES WE'RE TRYING TO BRING TO  
BEAR.

IT'S UNCLEAR THE TOOLS, TO  
ADDRESS THIS FORM OF  
UNINTENTIONAL DISCRIMINATION.  
ADDITIONALLY, THE PROBLEM IS  
THAT WE ARE EXACERBAING  
INEQUALITY, WHETHER THIS IS A  
CORRECT MECHANISM.

FOR MANY PROBLEMS IDENTIFIED  
EARLIER, THERE'S NO READY ANSWER

BOTH AT A TECHNICAL, LEGAL  
LEVEL, REQUIRE A CONVERSATION  
INVOLVING BOTH PARTS OF THIS  
DEBATE, THE TECHNICAL AND LEGAL.  
THANK YOU VERY MUCH.

I WILL SEE IF YOU HAVE FURTHER  
QUESTIONS.

WELCOME, EVERYONE.

I'M KATHERINE ARMSTRONG FROM  
DIVISION OF PRIVACY AND I'D TIE  
PROTECTION.

I HAVE TO SAY WE HAVE BEEN  
LOOKING FORWARD TO TODAY FOR A  
VERY LONG TIME.

THANK YOU ALL VERY MUCH FOR  
COMING AND WELCOME TO PANEL ONE.  
TODAY THIS PANEL IS GOING  
EXAMINE THE CURRENT USES OF BIG  
DATA IN A VARIETY OF CONTEXTS  
FROM MARKETING TO CREDIT TO  
EMPLOYMENT AND INSURANCE AND HOW  
THESE USES EFFECT CONSUMERS.

WE HOPE TO DO, ONE OF THE THINGS  
I THINK THE COMMISSION DOES  
BEST, AND THAT'S TO ASK  
QUESTIONS, TO LISTEN AND TO  
LEARN.

BEFORE I INTRODUCE THE PANEL, I  
WANT TO REMIND EVERYBODY THAT  
SOLON'S POWER POINT IS AVAILABLE  
ON THE WEB SITE.

LET ME BRIEFLY INTRODUCE OUR  
PANEL AND THEN WE WILL BEGIN.

KRISTIN AMORLING, CHIEF  
INVESTIGATIVE COUNSEL, DIRECTOR  
OF U.S. SENATE COMMITTEE ON  
COMMERCE, SCIENCE AND  
TRANSPORTATION.

DANAH BOYD, PRINCIPLE RESEARCHER  
AT MICROSOFT RESEARCH AND  
ASSISTANT PROFESSOR AT NEW YORK  
UNIVERSITY.

MALARY DUNCAN IS THE SENIOR VICE  
PRESIDENT AND AGAIN COUNSEL AT  
THE NATIONAL RETAIL FEDERATION.  
GENE GSELL, SENIOR VICE

PRESIDENT FOR CONSUMER PACKAGE  
GOODS AT SAS.

DAVID ROBINSON, PRINCIPLE AT  
ROBINSON AND YU.

JOSEPH TUROW, PROFESSOR FOR AND  
NEN BERG COMMUNICATIONS AT THE  
UNIVERSITY OF PENNSYLVANIA.

THANK YOU FOR PARTICIPATING IN  
THIS PANEL.

I'M GOING TO START WITH A  
QUESTION ABOUT WHAT IS BIG DATA.  
WHAT MAKES THE DATA UNIQUE?  
THIS IS VELOCITY, VARIETY,  
VOLUME?

DOES IT HAVE SOMETHING ELSE TO  
DO WITH THE RELATIONSHIP DERIVED  
FROM MAKING CONNECTIONS AMONG  
DATA SETS?

YOU'RE ALL FREE TO SPEAK TO THAT  
OR WHOEVER WANTS TO JUMP IN  
FIRST.

I HAVE A MIXED BACKGROUND.  
I STARTED WITH COMPUTER SCIENCE.  
I LOOK AT BIG DATA FROM BOTH  
SIDES.

WE CAN LOOK AT THE TECHNICAL  
PHENOMENON.

MUCH OF WHAT HE REFERRED TO GETS  
THAT.

THE SOCIAL PHENOMENON, IN MANY  
WAYS, HOMES AND DREAMS, FEARS  
AND ANXIETIES WITH BIG DATA.

THE POSSIBILITY THAT WE GET TO  
ACCEPT THE IDEA OF THE  
KNOWLEDGE, GIVE US FACTS THAT  
WILL ALLOW US TO MAKE SENSE OF  
THE WORLD AROUND US WHICH IN  
MANY WAYS OBSERVES THE  
COMPLEXITY.

A LOT OF WHAT WE'RE DEALING  
WITH, THE DATA ISN'T PERFECT.  
I LIKE TO THINK OF BIG DATA NOT  
SIMPLY IN ITS TECHNICAL  
SENSIBILITIES BUT AS A  
SOCIOTECHNICAL PHENOMENON THAT A  
LOT OF DIFFERENT CONFUSION AND

CHAOS.

IT'S REALLY IMPORTANT TO  
REMEMBER THAT ESPECIALLY IN  
LIGHT OF THE CONVERSATION TODAY,  
BECAUSE A LOT OF WHAT GOES ON IS  
THE UNCERTAINTY, NOT NECESSARILY  
THE FORMALISTIC MECHANISM OF  
DATA MINING, DATA SETS OR DATA

ANALYTICS.

>> TO PICK UP ON THAT, I THINK  
ONE OF THE THINGS THAT  
[INAUDIBLE]  
NOW IN SOME INSTANCES SOME DATA  
BEING USED  
[INAUDIBLE]  
I THINK, YOU KNOW,  
[INAUDIBLE]  
IF YOU'RE ON THE PHONE, PLEASE  
PUT YOUR PHONE ON MUTE.  
THANK YOU.

>> AT SOME LEVEL, SOME AMOUNT OF  
THAT IS --  
[INAUDIBLE]  
OUR TECHNOLOGISTS WORK WITH  
[INAUDIBLE]

.

>> I WOULD LIKE TO GO BACK TO A  
SECOND TO WHAT IS BIG DATA.  
[INAUDIBLE]

.

>> MORE DATA THAN YOUR  
ORGANIZATION CAN HANDLE.  
THAT'S BIG DATA.  
IF YOU HAVE MORE STUFF COMING TO  
YOU.

...

MANY DECISIONS MADE WITHIN  
PRIVATE ENTERPRISES ARE NOT  
VISIBLE.  
THIS BECOMES A TRADE-OFF.  
DO YOU ASSUME THE PRIVATE SECTOR  
ACTORS ARE INHERENTLY EVIL?  
OR DO YOU ASSUME THEY'RE  
ACTUALLY TRYING TO GO THE RIGHT  
THING?

WE CAN AGREE OR DISAGREE ON A VARIETY OF THAT.

THAT'S WHERE IT BECOMES DIFFICULT.

THE SAME TECHNIQUES THAT CAN BE USED TO INCREASE DIFFERENT ASPECTS OF FAIRNESS CAN BE USED TO CREATE COMPLEXITIES.

IT'S THE TENSION THAT BECOMES DIFFICULT BECAUSE IT'S OFTEN NOT VISIBLE.

IT'S NOT ONLY JUST NOT VISIBLE TO OUTSIDERS.

IT'S OFTEN NOT VISIBLE TO ACTORS THEMSELVES AS THEY'RE TRYING DO A LOT OF THE PREDICTIVE ANALYTICS THEY'RE WORKING ON. WE'RE WORKING WITH COMPLEX LEARNING ALGORITHMS, DO ENGINEERS EVEN UNDERSTAND WHAT'S GOING ON?

THIS IS WHERE WE GET BACK TO THE QUESTION OF SCORING.

THE OTHER THING IS THAT WHEN YOU DO THIS KIND OF WORK, WHAT DO YOU DO AS THE INTERVENTION?

SO I'LL GIVE AN EXAMPLE.

MICROSOFT RESEARCH IS THE ACADEMIC ARM OF MICROSOFT WHICH IS NICE BECAUSE IT MEANS RESEARCHERS PUBLIC A LOT OF THEIR EXPERIMENTS.

YOU CAN SEE CERTAIN ATTEMPTS TO TRY TO FIGURE THESE THINGS OUT.

I'LL GIVE AN EXAMPLE FROM A NON-FOCUS ON DISCRIMINATION BUT SHOWS THE CHALLENGE.

ERICATION RESEARCHER AT MICROSOFT RESEARCH.

HE'S AT THE POINT WITH BING DATA HE CAN PREDICT WITH HIGH LEVEL OF CERTAINTY BASED ON SEARCHES THAT THEY WILL BE HOSPITALIZED IN THE NEAR FUTURE.

IF YOU'RE IN MICROSOFT, DO YOU SEND A WARNING SIGN THAT YOU'RE

ABOUT TO BE HOSPITALIZED?  
THAT'S CREEPY.  
WHAT'S GOING ON?  
DOES THAT MEAN YOU FIGURE OUT A  
SUBTLER WAY, ADVERTISEMENT?  
A WAY OF SUGGESTING THAT THEY  
MIGHT THINK ABOUT IT?  
AGAIN, WHERE DO WE GET ON THE  
SORT OF MINORITY REPORT CREEPY  
ZONE?  
DO YOU NOT DO ANYTHING BECAUSE  
YOU DON'T WANT TO DEAL WITH THE  
LIABILITY?  
THOSE ARE ETHICAL QUESTIONS THAT  
BECOME PART OF IT.  
THINGS COMPANIES STRUGGLE.  
THEY START TO SEE A TREND, START  
TO REALIZE A CORRELATION, AND  
THEY GO OKAY, HOW DO WE  
INTERVENE IN AN APPROPRIATE WAY?  
OF COURSE, THIS ALSO BECOMES A  
CHALLENGE WHEN COMPANIES HAVE TO  
THINK ABOUT THE RESPONSIBILITY  
THEY HAVE BEYOND THEIR  
PARTICULAR DOMAIN.  
SO FOR EXAMPLE JP MORGAN AND%T-  
CHASE DOES AMAZING ANALYTICS  
WORK TO PREDICT WHETHER OR NOT  
SOMEBODY IS ENGAGED I  
TRAFFICKING OF HUMANS  
PARTICULARLY FOR SEX, RIGHT?  
THEY CAN DO THIS BASED ON  
DIFFERENT FINANCIAL PATTERNS  
THAT BECOME OBVIOUS.  
SO THEIR RESPONSE BECAUSE  
THEY'RE A COMPANY, THEY DON'T  
KNOW HOW THE INTERVENE IN HUMAN  
TRAFFICKING.  
WHY SHOULD THEY?  
THEY WORK WITH LAW ENFORCEMENT.  
THAT SOMETIMES IS A GOOD IDEA,  
SOMETIMES NOT.  
A LOT OF PEOPLE WHO WORK ON  
TRAFFICKING ISSUES HAVE  
IDENTIFIED WHY OFTEN LAW  
ENFORCEMENT IS NOT THE BEST

INTERVENTION POINT WHERE SOCIAL SERVICES IS.

SO HOW THEN DO WE THIS BY THE ETHICS OF THOSE RESPONSES?

AND THIS IS WHERE WE HAVE GOT THIS BIG CHALLENGE WITH CORPORATIONS.

WHAT ARE THEY CHOOSING TO LOOK AT?

ARE THEY CHOOSING TO DO IT IN A WAY WE DEEM TO BE ETHICAL OR APPROPRIATE?

WHAT DO THEY DO WITH THE INFORMATION THAT THEY GET?

AND WHEN AND WHERE DO THEY OR SHOULD THEY MAKE THIS INFORMATION PUBLIC?

AND IT'S NOT EASY TO WORK OUT.

I DON'T WANT TO ASSUME OUR SIEL SENSE AND FAILURE TO GIVE EXAMPLES, SILENCE IS NOT THAT THEY'RE BAD ACTORS.

THESE THINGS AREN'T VISIBLE FOR A VARIETY OF COMPLEX ETHICAL CONCERNS.

>> I THINK THAT'S ONE OF THE POINTS THAT THE REPORT SHOWED LAST YEAR.

WOULD YOU CARE TO ELABORATE ON THAT?

>> WE RAN IN TO THIS LACK OF VISIBILITY ISSUE IN A NUMBER OF WAYS WHEN WE WERE LOOK AT PRACTICES OF THE REPRESENTATIVE DATA BROKER COMPANIES.

FIRST, THE COMPANIES ARE GATHERING INFORMATION, LARGELY WITHOUT CONSUMER DIRECT INTERACTION WITH THE CONSUMER SO THE CONSUMERS THEMSELVES AREN'T REALLY AWARE COMPANIES ARE USING THEIR INFORMATION OR COMPANIES NECESSARILY EVEN EXIST.

THEN IN LOOKING AT CONTRACTUAL PROVISIONS PROVIDED TO THE

COMMITTEE WE SAW THAT MANY OF THE COMPANIES PERPETUATE THIS SECRECY BY INCLUDING CONTRACTUAL PROVISIONS IN THEIR CONTRACTS WITH THEIR CUSTOMERS THAT SAY YOU'RE PROHIBITED FROM DISCLOSING WHAT YOUR DATA SOURCE WAS.

AND THEN EVEN WHEN A NUMBER OF COMPANIES DO PROVIDE, A NUMBER OF COMPANIES WE SURVEYED DO PROVIDE SOME RIGHTS OF ACCESS FOR CONSUMERS TO LOOK AT THE DATA THAT THEY HAVE ON THEM, AND IN SOME CASES THEY PROVIDE SOME RIGHTS OF CORRECTION IF THE CONSUMER FEELS THE DATA IS INACCURATE, BUT EVEN WHEN THOSE RIGHTS ARE PROVIDED AND NOT ALL COMPANIES DO PROVIDE THEM, THEY DON'T HAVE MUCH VALUE WHEN THE MAJORITY OF CONSUMERS AREN'T EVEN AWARE THE COMPANIES EXIST OR ARE COLLECTING THIS DATA. THEN IN ADDITION WE RAN IN TO SEVERAL LARGE COMPANIES THAT OUTRIGHT REFUSED TO PROVIDE TO THE COMMITTEE WHO WERE THEIR SPECIFIC DATA SOURCES AND WHO ARE THEIR SPECIFIC CUSTOMERS. SO THOSE WERE ALL OBSTACLES TO TRY TO UNDERSTAND HOW THIS INFORMATION IS BEING USED.

>> A VERY INTERESTING SITUATION RIGHT NOW, ESPECIALLY IN THE RETAIL COMMUNITY.

WE'RE IN A TRANSITIONAL PERIOD. FOR A LONG TIME IN THE WORLD THERE EXISTED THE ONLINE COMMUNITY WHICH A GREAT DEAL OF INFORMATION TENDS TO BE GATHERED.

THEN THE IN-STORE COMMUNITY WHERE IT'S A LOT MORE MEAGER. WE HAVE SEEN A BEHAVIOR IN STORES AND CONSUMERS WHERE THEY



WANT TO VIEW THIS AS OMNI  
CHANNEL.  
THEY WANT TO BUY IT ONLINE,  
RETURN IT IN THE STORE.  
THAT MEANS THERE HAVE TO BE DATA  
FLOWS BACK AND FORTH BETWEEN THE  
TWO MARKETS.  
AND SO FOLKS RUNNING THE STORE  
HAVE TO FIGURE OUT HOW FAR CAN  
WE GO?  
WHAT WE FIND HAPPENS AND THIS  
MAY EXPLAIN SOME OF THE  
INFORMATION SHORTAGES YOU'RE  
TALKING ABOUT, WHAT HAPPENS IS  
THEY LOOK AT CORRELATES TO WHAT  
CONSUMERS EXPECT IN TERMS OF THE  
USE OF INFORMATION IN THE STORE.  
AND THAT'S THE MODEL THEY USE.  
SO THEY TEND TO BE VERY  
CONSERVATIVE IN TERMS OF  
EXPANDING THE USE OF THE DATA OR  
THE EXPANSION OF DATA.  
>> CAN YOU GIVE AN EXAMPLE OF  
THAT?  
>> SURE.  
THERE IS, THERE MAY BE COOKIES  
USED ONLINE THAT WILL TRAVEL  
FROM LOCATION TO LOCATION.  
IN A STORE ENVIRONMENT WE'RE  
UNCOMFORTABLE WITH THAT KIND OF  
MOVEMENT.  
WE WOULD SAY CONSUMERS ARE  
COMFORTABLE BEING OBSERVED IN  
THE STORE AND SO INFORMATION MAY  
BE GATHERED AND USED WITHIN THE  
STORE CONTEXT.  
BUT THEY'RE VERY RELUCTANT TO GO  
BEYOND THAT.  
BECAUSE THAT VIOLATES CONSUMER,  
THAT VIOLATES THE STORE'S  
EXPECTATION OF THE CONSUMER'S  
REASONABLE EXPECTATION.  
>> MALARY HINTING AT THE FACT  
THERE ARE STARTUPS OUT THERE  
TRYING TO TRACK MOBILE PHONES IN  
THE STORES.

THERE'S A BIG TENSION WITHIN THE RETAILERS AS TO WHETHER OR NOT TO IMPLEMENT THAT BECAUSE IT PARALLEL IT IS COOKIES, TRACK UNIQUE IDENTIFIER OF A PHONE, SEE WHETHER YOU HAVE SEEN THE PERSON BEFORE, SEE PATTERNS, HOW THEY NAVIGATE THE STORE. ALL OF THAT IS TECHNICALLY FEASIBLE.

THE QUESTION IS WHETHER OR NOT RETAILERS WANT<sup>Th</sup>, OR WHAT CHALLENGES ARE OF DOING SO.

>> JOE WANTS TO ADD SOMETHING.

>> I SPOKE TO PEOPLE WHO SAY THEY DO THAT NOW.

AND ALL YOU HAVE TO DO IS THINK ABOUT LOYALTY CARDS.

LOYALTY CARDS WHICH ARE KEPT BY VIRTUALLY EVERYONE HERE WHO GOES TO A SUPERMARKET PROBABLY USE AS LOYALTY CARD, 90% OF AMERICANS WHO GO TO SUPERMARKETS THAT GIVE LOYALTY CARDS BECAUSE YOU LOSE A LOT OF MONEY IF YOU DON'T.

THEY TRACK EVERYTHING YOU DO. UNTIL THE LAST FEW YEARS, THEY HAVEN'T BEEN ABLE TO DO MUCH IT WITH.

THEY HAVEN'T FOR LOTS OF REASONS, DONE ANY BIG DATA ANALYSES.

THAT'S CHANGING TOTALLY.

THERE ARE COMPANIES FOR EXAMPLE KROGER OWNS PART OF DUNN HUMBY, A COMPANY DESIGNED JUST DO THESE SORTS OF ANALYTICS.

THE IDEA NOW COMPANIES LIKE MACY'S AND OTHERS ARE PUTTING PODS, BEACONS IN STORES THAT LOOK AT YOU WHEN YOU REACH A CERTAIN POINT AND GIVE YOU SPECIFIC BLANDISHMENTS, FOR DISCOUNTS.

CATALINA, COUPONS AS YOU CHECK

OUT BASED UPON 5 WEEKS OF  
LOOKING AT YOUR SHOPPING HABITS  
ANONYMOUSLY.

NOW THEY'RE BEGINNING DO STUFF  
IN THE STORE IN A DIGITAL SENSE.  
AND OUTSIDE THE STORE.

SO IN FACT YOU'RE RIGHT, WHAT'S  
HAPPENING NOW IS STORES ARE  
GETTING SO NERVOUS ABOUT THE  
ONLINE ENVIRONMENT THAT PHYSICAL  
STORES ARE BRINGING THE INTERNET  
TO THE STORE.

AND THE BIG DATA ARE EXTREMELY A  
PART OF THAT IN WAYS THAT DANA  
MENTIONED AND IN OTHER WAYS AS  
WELL.

AND THAT'S EXACTLY WHAT'S  
HAPPENING.

IT'S A FASCINATING TRAJECTORY  
PARTLY BECAUSE OF THE GROWTH OF  
BIG DATA IN THE ONLINE WORLD.

>> IF I CORK IT'S ALSO BECAUSE  
THE CONSUMER EXPECTS THAT  
SEAMLESS EXPERIENCE.

IT PRESENTS THE RETAIL WERE A  
BIT OF A DILEMMA.

YOU WANT TO TREAT CONSUMERS IN  
THE WAY THEY LIKE TO BE TREATED  
BUT YOU WANT TO BE SENSITIVE TO  
THE PRIVACY IMPLICATIONS AND THE  
USE OF THE DATA AT THE SAME  
TIME.

AND HOW YOU SQUARE THAT CIRCLE  
DEPENDS ON THE REPUTATION OF  
EACH RETAILER.

>> BUT IS AT TRANSPARENCY ISSUE?

IN 5, 10 YEARS IT WILL BE  
DIFFERENT BECAUSE THE CONSUMER'S  
EXPECTATION OF PRIVACY OR NOT  
SORT OF BEING THEIR PURCHASES OR  
THEIR BEHAVIOR BEING FOLLOWED?  
I MEAN I ALMOST HEAR YOU SAYING  
THAT IT'S SORT OF EXPECTED  
ONLINE, BUT NOT IN A STORE.  
THAT SEEMS LIKE A LITTLE BIT OF  
A DISCONNECT TO ME.

>> TO SOME EXTENT IT'S  
GENERATIONAL.  
SO I AM HIGH ON THE CREEP FACTOR  
ON SOME OF THOSE PARTICULAR  
THINGS.  
BUT MY KIDS, YOU KNOW, THEY HAVE  
NO PROBLEM.  
THEY EXPECT THAT, TO YOUR POINT.  
THEY EXPECT THE SAME KIND OF  
OFFERS AND SERVICE AND  
INTERACTION ONLINE WHEN THEY  
WALK THROUGH STORE, THEY EXPECT  
THE SAME EXPERIENCE.  
>> I WANT TO -- YOUNG PEOPLE, A  
LOT OF SELF  
YOUNG PEOPLE ARE AS SELF DELUDED  
AS WE ADULTS ARE.  
THERE'S NOT THAT BIG A  
DIFFERENCE, THEY WANT PRIVACY  
TOO, THEY'RE FOCUSED HEAVILY ON  
PEOPLE WHO HOLD IMMEDIATE POWER  
OVER THEM.  
WE CAME THIS MORNING, WE KNEW IT  
WAS GOING TO BE RECORD, WE KNEW  
PEOPLE WOULD TAKE PICTURES, WERE  
AT A PUBLIC EVENT.  
WHEN WE HEARD THIS MORNING THE  
LISTED DETAIL OF LIKE IF YOU  
OBJECT TO ANY MOMENT TO A  
PHOTOGRAPH BEING TAKEN, YOU  
KNOW, AS TIFFANY WENT THROUGH,  
THIS YOU'RE LIKE WANE TO LEAVE,  
THIS IS CREEPY.  
EVEN THOUGH YOU KNOW IT, PART IS  
THAT YOU HAD TO PUT IT DOWN, YOU  
HADN'T THOUGHT ABOUT YOUR HAIR  
IN PERFECT FORM.  
THIS IS ONE OF THE CHALLENGES  
THAT WE RUN IN TO ALL THE TIME  
WHICH IS THAT NOTICE AND  
INFORMATION IS NOT ALWAYS THE  
BEST WAY TO ACTUALLY CREATE A  
MEANINGFUL RELATIONSHIP.  
THERE'S A LOT OF SELF DELUSION  
ON BOTH SIDES.  
THE REALITY IS WE ALSO, WE

COLLECT A LOT OF VIDEOTAPE THAT  
WE NEVER LOOK AT, RIGHT?  
MY GUESS IS THAT MOST OF RUSS  
NEVER GOING TO LOOK AT THE  
VIDEOTAPE OF HOW BADLY OUR HAIR  
LOOKS ON THE CAMERA.

PART OF IS THIS INTERESTING  
CHALLENGE OF HOW MUCH DO WE  
PURPOSELY PUT THIS INFORMATION  
ASIDE AND NAVIGATE IT THROUGH?

I WOULD NOT PUT THIS AS A  
GENERATIONAL ISSUE.  
THIS IS NOT A GENERATIONAL  
ISSUE.

CHRIS IN PARTICULAR HAS DONE  
PHENOMENAL WORK LOOKING AT THE  
CONSUMER SIDE.

YOUNG PEOPLE FEEL THE SAME WAY  
AS ADULTS, TRADE-OFFS LOOK  
DIFFERENT.

>> IS IT EDUCATIONAL?

IT'S EASY TO SUGGEST IT COULD BE  
A GENERATIONAL THING OR NOT.  
BUT I WONDER HOW ÷ DO WE EDUCATE  
PEOPLE, NOT JUST ADULTS, NOT  
JUST CHILDREN OR YOUNGER PEOPLE,  
TO EXPECT THAT OR TO KNOW THAT  
THEIR TRANSACTIONS WILL BE  
RECORDED OR COLLECTED.

>> BASICALLY ASKING TO EDUCATE  
THEM ABOUT THE FACT THEY'RE  
POWERLESS, RIGHT?

THAT'S WHAT THE EDUCATION ENDS  
UP BEING ABOUT.

EITHER YOU OPT OUT OF THIS ROOM,  
RIGHT?

OR YOU'LL BE RECORDED, PERIOD.  
YOU HAVE NO SAY.

THAT'S ONE OF THE TRADE-OFFS  
THAT HAPPENS ALL THE TIME ONLINE  
OR IN THESE COMMERCIAL  
ENVIRONMENTS, RIGHT?

YOU WANT TO GO AND BUY SOMETHING  
FROM BEST BUY, YOU WILL BE  
RECORDED, GET OVER IT, RIGHT?  
OTHERWISE DON'T GO TO BEST BUY.

>> TO PICK UP ON THIS  
TRANSPARENCY AND ON SOMETHING  
DANAH EARLIER SAID, WE GO HE TO  
PUBLIC SECTOR EXAMPLES BECAUSE  
WE DON'T KNOW WHAT'S GOING ON IN  
PRIVATE ENTERPRISES, THINK  
THAT'S ABSOLUTELY TRUE AND  
CENTRAL TO FTC DECISIONS ABOUT  
WHAT TO DO IN THIS AREA.  
EDUCATION ABOUT THE FACT THAT A  
PRACTICE HAPPENS IN GENERAL DOES  
REALLY LITTLE, IF ANY HELP TO  
FIGURE OUT WHETHER THAT PRACTICE  
MANIFESTS IN A DISCRIMINATORY  
FASHION FOR PARTICULAR PEOPLE  
AND DR. SWEENEY'S WORK ON THE  
DISCRIMINATORY DELIVERY OF  
ONLINE ADS IS INDEED A UNIQUE  
EXAMPLE AVAILABLE IN THE PUBLIC  
DISCUSSION WHICH IS WHY THE  
CHAIRWOMAN MENTIONED IT THIS  
MORNING AND WE HAVE COME BACK TO  
IT HERE.  
AND I THINK WHAT I WOULD LIKE TO  
SEE IS A WORLD IN WHICH YOU  
DON'T HAVE TO BE A WORLD LEADING  
DATA SCIENTIST WHO HAPPENS TO BE  
THE VICTIM OF DISCRIMINATION TO  
HAVE TOOLS NECESSARY TO CHECK  
THAT THAT'S HAPPENING AND  
ADDRESS IT.  
CERTAINLY AFTER THE STUDY CAME  
OUT GOOGLE CHANGED ITS PRACTICES  
WITH RESPECT TO THE DELIVERY OF  
ADS OPPOSITE, NAMES IN GENERAL  
IN ORDER TO AVOID THE  
DISCRIMINATION HARM OF THESE  
DISPARAGING ARRESTS, SUGGESTIVE  
ADS.  
THAT'S AN EXTREMELY UNUSUAL  
CASE.  
I THINK WE WOULD ALL LIKE TO SEE  
A WORLD IN WHICH IF HARMS LIKE  
THAT ARE HAPPENING TO PEOPLE  
WHO, YOU KNOW, ARE NOT ACADEMICS  
AND DATA SCIENTISTS WITH ALL OF

THE RESOURCES THAT IT WOULD TAKE TO BE A PERSONAL SORT OF SCHOLAR OF THAT DISCRIMINATORY HARM, WHEN THAT HARM BEFALLS SOMEONE IN A DIFFERENT POSITION WHO IS MORE IN A MARGINALIZED POSITION, I THINK WHAT WE WOULD ALL LIKE TO SEE IS FOR THOSE HARMS TO BE TREATED WITH EQUAL SERIOUSNESS. BUT I THINK THE FEAR THAT THE COMMUNITY HAS RIGHT NOW, WHICH I THINK IS AN÷>

WELL-GROUNDED ONE IS THAT WHEN HARMS OF THAT SORT DO BEFALL SOMEONE IN A MARGINAL SOODZ POSITION, THEY REALLY DON'T HAVE THE TOOLS TODAY TO NOT ONLY SOLVE BUT EVEN NECESSARILY TO DIAGNOSE THOSE PROBLEMS.

>> I WAS GOING TO SAY SOME WOULD ARGUE THE FAIR CREDIT REPORTING ACT IS A MECHANISM IN THE CREDIT CONTEXT BECAUSE IT'S DOING EXACTLY THE SORTS OF THINGS YOU'RE TALKING ABOUT, WHICH IS WHEN ADVERSE ACTION, IFG WITHIN AN ADVERSE ACTION IS TAKEN, YOU'RE PROVIDED A NOTICE THAT THE ADVERSE ACTION WAS A RESULT OF SOMETHING IN THE CREDIT REPORT AND YOU'RE GIVEN THE OPPORTUNITY TO DISPUTE THAT INFORMATION.

SO I WONDER7LqI.JdAD THE EXPECTATION IN THE CREDIT WORLD IS A LITTLE DIFFERENT BECAUSE THEY KNOW THEY HAVE THIS MECHANISM IN PLACE AND WHETHER THAT'S A MET TRICK USEFUL IN ANOTHER CONTEXT.

>> I THINK WE HAVE TO MAKE QUALITATIVE DIFFERENCES WHEN WE'RE TALKING ABOUT CREDIT ORB INSURANCE OR EDUCATION WE MAY HAVE VERY DIFFERENT EXPECTATIONS THAN WHEN WE'RE TALKING ABOUT MARKETING.

LET ME GO BACK A MOMENT AGO TO  
THE EXAMPLE OF THE SPORTS CAR.  
ONE SOLUTION WOULD BE TO SAY NO,  
YOU MUST SEND THAT OFFER TO COME  
IN AND TEST DRIVE THE CAR TO  
MORE PEOPLE T CONSEQUENCES OF  
THAT IS THAT PEOPLE RECEIVE THE  
OFFER WHO HAVE NO INTEREST IN  
IT, THUS DEPLETING THE FUNDS  
THAT THE DEALERSHIP HAS FOR  
SENDING IT OUT.

OR PEOPLE WILL RUSH IN TO TEST  
DRIVE IT WHO HAVE NO ABILITY TO  
PURCHASE THE CAR.

THUS TYING UP THE SERVICE FOLKS  
AT THE AUTO DEALERSHIP.

SO YOU REALLY HAVE TO LOOK AT  
THE QUALITY OF WHAT YOU'RE DOING  
AS OPPOSED TO JUST SAYING LET'S  
TAKE THE CREDIT REPORTING  
STRUCTURE AND APPLY THAT MORE  
BROADLY.

>> THE CREDIT REPORTING IS AN  
IMPORTANT INTERVENTION, I'M VERY  
EXCITED TO SEE THAT BE A  
REGULATORY INTERVENTION BUT  
LET'S BE REALISTIC.

MANY PEOPLE MOST HIT BY IT HAVE  
NOT THE TIME, NO IT THE  
CONNECTIONS, NOT THE  
UNDERSTANDING, NOT THE LITERACY,  
NOT THE WHEREWITHAL AND DON'T  
FEEL A SENSE OF POWER TO  
ACTUALLY FIGHT IT IN MANY CASES.  
SO WHEN WE ACTUALLY LOOK AT THAT  
IT'S ALSO THIS QUESTION OF WHO  
HAS ALL OF THOSE RESOURCES?  
THOSE SOFT RESOURCES TO BE ABLE  
TO DO THE THING THAT THEY'RE  
SUPPOSEDLY PROTECTED FOR.  
THAT'S WHY THIS INTERESTING  
TENSION IMMERGES OF WHERE ARE WE  
TRYING TO GET MARGEALIZED  
VOICES, PROTECTED CLASSES OR  
YOUTH RISE UP, BE POWERFUL  
AGAINST CLASSES THAT ARE



CHALLENGING THEM OR THINK ABOUT THE ROLE OF DIFFERENT ADVOCACY GROUPS OR ACTORS WHO WORK ON THEIR BEHALF.

WE HAVE TO BE REALISTIC ABOUT HOW WE'RE DEALING WITH THIS. THIS IS THE CHALLENGE WITH EDUCATION.

I THINK A LOT OF OUR EDUCATION NARRATIVES GO BACK TO CONSUMERS, WITHOUT ACTUALLY THINKING ABOUT THE LACK OF OTHER RESOURCES THAT THEY HAVE TO MAKE SENSE OF OR FEEL AGENCY OR POWER IN LIGHT OF WHAT'S GOING ON.

THAT'S A DIFFERENCE BETWEEN HOW WE THINK ABOUT IT THEORETICALLY AND REGULATORY CONTEXT VERSUS WHAT I SEE TO GROUND WHEN I DEAL MARGINALIZED PEOPLE WHO FEEL LIKE I DON'T HAVE ANY SENSE OF POWER DO ANYTHING ABOUT THIS SO DON'T TELL ME ABOUT IT.

>> WHAT'S THE SOLUTION?

WHAT ARE YOUR RECOMMENDATIONS FOR EMPOWERING THOSE PEOPLE?

>> THIS IS WHERE I DO, I BELIEVE STRONGLY IN THE ROELF ADVOCACY AS A MECHANISM, ROLE OF ADVOCACY TO SPEAK ON BEHALF OF GROUPS, ONE OF THE REASONS DAVE AND I SPEND TIME SPEAKING WITH SIMPLE RIGHTS GROUPS.

THOSE FOLKS NEED TO BE EDUCATED ON BEHALF OF POPULATIONS AS OPPOSED TO, AND THEY NEED TO HAVE THE TRANSPARENCY AND THE TOOLS AND THE MECHANISMS WITH WHICH TO HOLD SYSTEMS OF POWER ACCOUNTABLE WITHOUT ALWAYS GOING DIRECT TO THE CONSUMER AS THE RIGHT DIRECTION THERE.

>> SO THESE ARE GROUPS THAT HAVE UNIQUE, YOU KNOW, THAT HOLD THE FRANCHISE THROUGH THEIR, AND HAVE EARNED THE FRANCHISE TO

SPEAK FOR THESE COMMUNITIES AND  
POLICY SETTINGS, RIGHT?

THERE ARE PEOPLE WHO, WHOSE JOB  
IS THAT, PEOPLE WHO DO IT FOR  
EVERY, YOU KNOW, DOWN TO MIKE  
GRANT FARM WORK HE IS AND MOST,  
MIGRANT FARM WORKERS, MOST  
MARGINALIZED PEOPLE IN THE  
COUNTRY HAVE PEOPLE WHO ARE  
THERE.

BUT MAKING THE PRACTICES  
TRANSPARENT ENOUGH TO GIVE HAND  
HOLDS TO ADVOCATES IN THOSE  
CASES IN WHICH THERE'S A ROLE  
THAT THEY DO NEED TO PLAY, I  
THINK IS A ROLE THAT THE FTC  
ITSELF HAS OFTEN SUCCESSFULLY  
PLAYED AND CERTAINLY I THINK A  
GOOD MODEL FOR THE THINGS THAT  
IT APPLIES TO AND HAS CERTAINLY  
PLAYED A ROLE IN MAKING  
UNDERWRITING A RELATIVELY  
CONSERVATIVE AREA IN TERMS OF  
THE APPLICATIONS OF BIG DATA AS  
COMPARED TO UNREGULATED  
MARKETING PRACTICES ALTHOUGH AS  
THE CHAIRWOMAN NOTED IN THE CASE  
OF THESE THINLY AGGREGATED  
SCORES THAT MAY BE USED TO LOWER  
CREDIT LIMIT THAT ARE PUNITIVELY  
OUTSIDE OF FICRA, IN A THINK  
THERE ARE LEGISLATIVE AND  
CONSTITUTIONAL QUESTIONS AS TO  
HOW FAR THE MODEL CAN BE  
EXTENDED IN TO THE MARKETING  
WORLD THAT I THINK DO FORCE US  
TO, AND I ALSO, LAW AND  
REGULATION HAVE A VALUABLE ROLE  
TO PLAY BUT SO DOES CORPORATE  
CITIZENSHIP POTENTIALLY.  
I THINK PEOPLE WHO SAY WE'RE  
DOING STUFF IN A WAY WE WOULD  
LIKE TO BE RESPONSIBLE AND WE  
WOULD LIKE TO TAKE AFFIRMATIVE  
STEPS TO MAKE SURE WE'RE NOT  
INADVERTENTLY HAVING

DISPROPORTIONATE ADVERSE  
IMPACTS, I THINK THERE'S A ROLE  
THERE FOR COLLABORATION WITH  
ADVOCATES BECAUSE RIGHT NOW IT'S  
NOT CLEAR WHAT THE SIGN POSTS  
ARE, WHAT THE BENCHMARKS ARE FOR  
MAKING SURE THAT YOU'RE NOT  
DOING THESE THINGS  
INADVERTENTLY.  
I THINK IF I WERE TO PROJECT  
FORWARD 5, 10 YEARS, MY

RECOMMENDATION, HOPE AND  
PREDICTION WOULD BE THAT THERE  
ARE GOING TO BE SOME PRACTICES  
THAT EMERGE.

MY GUESS IS THEY WILL EMERGE  
PROBABLY IN A COLLABORATIVE  
FASHION THAT'S PROBABLY OUTSIDE  
OF THE LEGISLATIVE PROCESS.

>> I WANT TO BE VERY CAREFUL.

I THINK HERE BECAUSE ACCESS TO  
CREDIT IS SIMPLY A FUNDAMENTAL  
RIGHT IN THIS COUNTRY.

ACCESS TO A HIGH END MEN'S  
FASHION CATALOGUE IS NOT.

AND WE OUGHT NOT TO CONFLATE THE  
TWO IN THIS DISCUSSION.

>> THE KINDS OF PRODUCTS THAT WE  
SAW IN OUR REVIEW OF DATA BROKER  
PRACTICES THAT INVOLVE MARKETING  
DID GO BEYOND PRODUCTS DESIGNED  
TO PROMOTE THE MOST APPROPRIATE  
CAR, REACH THE PEOPLE MOST  
INTERESTED IN COOKING MAGAZINES.

THERE ARE A WIDE VARIETY OF  
GROUPINGS OF CONSUMERS BASED ON  
THEIR FINANCIAL AND HOUSE STATUS  
THAT INCLUDES LISTS OF PEOPLE  
WHO HAVE DIABETES, ALZHEIMER'S,  
SUFFERING FROM DEPRESSION, THAT  
CONSUMERS MAY NOT BE AS HAPPY TO  
FIND THAT THEY'RE ON AS FINDING  
OUT THAT THEY CAN BE TARGETED  
FOR THE BEST CAR, MOST TAILORED  
TO THEIR NEED.

THERE'S ACTUALLY AN INTERESTING ARTICLE THAT JUST CAME OUT LAST WEEK BY BLOOMBERG ON WIDESPREAD SALE OF HEALTH AILMENTS LISTS THAT GOES RIGHT TO THIS POINT WHERE THEY REPORTED THAT JUST WITH SIMPLE GOOGLE SEARCHES THE REPORTERS WERE ABLE TO FIND LISTS OF CONSUMERS WITH THEIR NAMES AND ADDRESSES, IDENTIFIED AS ASSOCIATED WITH SPECIFIC DISEASES.

AND THEY INTERVIEWED SOME OF THESE CONSUMERS AND ONE WHO WAS ASSOCIATED WITH A DIABETES LIST WAS SURPRISED AND NOT AT ALL HAPPY TO FIND OUT THAT HE WAS ON THIS LIST AND SAID HE DIDN'T HAVE DIABETES AND NOBODY IN HIS FAMILY HAD IT.

SO THERE ARE SOME SENSITIVITIES RAISED BY SOME OF THESE PRODUCTS THAT I THINK ARE A LITTLE MORE IN THE GRAY AREA THAN JUST THESE ARE THE BEST PRODUCTS TO TAILOR TO THE NEEDS.

>> WE'RE ABOUT TO RUN OUT OF TIME.

BUT I WOULD LIKE TO GIVE EVERYBODY ON THE PANEL AN OPPORTUNITY TO SAY SOME PARTING REMARKS.

WE HAVE SOME QUESTION CARDS FROM THE AUDIENCE THAT RAISE SOME ISSUES THAT I THINK WOULD BE WORTH MENTIONING.

THAT IS THE LEVEL OF TRUST THAT MAY APPEAR TO BE MISSING IN THE BIG DATA CONTEXT OF THE RELATIONSHIP OF MARKETERS, A PERSON THAT GOES TO A STORE MAY CHOOSE TO GO TO THE STORE, THERE MAY BE A LEVEL OF TRUST THERE. BUT THE INVOICEABILITY OF BIG DATA, INVISIBLEABILITY DISBURSE IT IS TRUST.

I FEEL TERRIBLE IN A WAY BECAUSE  
WE ENDED THIS PANEL TALKING  
ABOUT WHAT THE LAST PANEL IS  
GOING TO BE TALKING MORE, WHICH  
IS SORT OF THE PATH FORWARD.  
SO AS YOU PROVIDE YOUR FINAL  
REMARKS, IF YOU WOULD ALSO  
REMEMBER THAT WE WERE LAYING THE  
LANDSCAPE.

IF YOU COULD BRING IT BACK TO  
WHAT'S HAPPENING NOW AS WE WRAP  
UP, THAT WOULD BE FABULOUS.

>> OKAY, I HAD A PATH FORWARD.

I'LL TRY TO MAKE IT A NOW.

THE NOW PART OF IT REMINDS ME  
ABOUT THE, I THINK IT'S SHAMEFUL  
THAT IN A COMMERCE COMMITTEE  
HEARING WHEN A SENATOR ASKS A  
REPRESENTATIVE OF THE DATA  
INDUSTRY WHETHER HE COULD NAME  
HIS CLIENTS, HE REFUSES TO DO  
THAT.

THESE ARE AREAS OF LIFE THAT  
IMPACT ALL OF US.

AND THE COLLECTION OF  
INFORMATION ABOUT US AND THEIR  
USE I THINK SHOULD BE REQUIRED.  
I THINK COMPANIES SHOULD BE  
REQUIRED TO SAY WHICH DATA  
BROKER, DATA BROKER SHOULD BE  
REQUIRED TO SAY WHO THEY GET IT  
FROM, WHAT ARE THE THE  
CATEGORIES BECAUSE THESE EFFECT  
US EVERY DAY.

IN TERMS OF EDUCATION, MOST  
PEOPLE LEARNING ABOUT CREDIT  
CARDS AND LOYALTY FROM JENNIFER  
GARNER ON TV COMMERCIALS THAN  
THEY LEARN FROM ANYWHERE ELSE.  
WE HAVE NO LEARNING ABOUT THIS  
PEOPLE, IS TOTALLY OBSCURE.  
AND I WOULD SUGGEST THAT'S  
PURPOSEFUL.

I THINK THE IDEA OF BIG DATA IS  
A CONTINUITY, AN ELEMENT OF  
CONTINUITY BETWEEN THAT AND THE

QUANTIFICATION OF THE INDIVIDUAL  
THAT HAS GONE BACK 30, 40 YEARS.  
BUT WE'RE IN A CENTURY NOW THAT  
I THINK WILL BE LACKED AT AS THE  
CENTURY OF DATA.

THE CENTURY OF PINNING NUMBERS  
ON PEOPLE AND TRYING TO FIGURE  
OUT WHERE THAT LEADS PEOPLE.  
AND WE'RE ONLY AT THE BEGINNING.  
SO I THINK WE HAVE TO REALIZE  
THAT THIS STUFF IS IMPORTANT NOT  
JUST FOR NOW AND IT'S GOING THE  
GET MUCH STRONGER WITH GREATER  
PROCESSING AND THE KIND OF  
THINGS THAT PEOPLE ARE SAYING  
TODAY, WE CAN'T DO IT, ARE GOING  
TO BE DONE.

SO THE ISSUE IS NOT, IS THIS  
GOING TO HAPPEN BECAUSE IT'S TOO  
FUTURISTICMENT WHEN IT HAPPENS  
ARE WE GOING TO HAVE THE  
CONCEPTIONAL TOOLS TO DEAL WITH  
IT?

>> TO PICK UP ON THE QUESTION  
ABOUT TRUST AND WHERE THINGS ARE  
TODAY, I THINK THERE'S AN  
UNREALIZED OPPORTUNITY TO CREATE  
GREATER TRUST WITH CONSUMERS IN  
TERMS OF HOW THESE TECHNOLOGIES  
ARE BEING USED.

AND I THINK THAT THE TOOLS THAT  
WE HAVE FROM PRIOR REGIMES ABOUT  
NOTICE THAT YOUR DATA IS BEING  
COLLECTED, THE NOTICE AND  
CONSENT REGIME FRANKLY I DON'T  
THINK OFFER THE TOOLS TO CREATE  
THAT GREATER TRUST.

BECAUSE AS DANAH WAS SAYING,  
DATA COLLECTED IN A WAY THAT YOU  
DON'T HAVE FINE GRAIN AWARENESS  
AND CERTAINLY DON'T HAVE FINE  
GRAIN CHOICE ABOUT WHAT'S GOING  
TO HAPPEN.

AND I THINK THAT THE TOOLS THAT  
WE NEED IN ORDER TO BE ABLE T7  
THE PREDICTIVE PAYOFF FROM THESE

AND LITTICS BUT AT THE SAME TIME  
GIVE CONSUMERS GOOD REASON TO  
TRUST THAT THINGS ARE BEING DONE  
IN A WAY THAT THEY CAN FEEL  
COMFORTABLE ABOUT, I THINK THOSE  
TOOLS HAVE REALLY NOT BEEN PER  
AFFECTED YET AND THAT WE'RE IN  
AN EXPLORATORY INITIAL PLACE NOW  
OF NEEDING TO BUILD NEW TOOLS  
FOR ACCOUNTABILITY AND TRUST  
CONSISTENT WITH THE BUSINESS  
LEVERAGING OF THESE TOOLS.

>> I GUESS WHAT I SEE IS THE  
GIANINI IS OUT OF THE BOTTLE,  
GENIE IS OUT OF THE BOTTLE,  
STUFFING IT BACK IN ISN'T GOING  
TO HAPPEN, AND THERE WILL  
CONTINUE TO BE MORE THIS YEAR  
THAN LAST YEAR.

I THINK FOR THE POST PART USES  
ARE MUCH MORE POSITIVE THAN  
NEGATIVE.

THERE ARE ENORMOUS EXAMPLES OF  
BIG DATA APPLIED TO SOLVE BIG  
PROBLEMS, BIG WORLDLY PROBLEMS,  
BIG HUMAN PROBLEMS IN HEALTH  
CARE AND GENETICS AND DISEASE  
CONTROL, IN COMMERCE, IN TERMS  
OF HOW TO MINIMIZE FUEL  
CONSUMPTION ACROSS AIRLINES OR  
UPPINGS OR PEOPLE LIKE THAT.

FOR THE MOST PART IT'S VERY,  
VERY POSITIVE THIS WE CAN NOW  
COMPUTE ON DATA THAT WASN'T EVEN  
AVAILABLE TWO, THREE, FIVE, 10  
YEARS AGO.

FROM A CONSUMER PERSPECTIVE,  
AGAIN, I THINK THE ECONOMIC  
MODEL STILL WILL DRIVE MOST OF  
THE THOUGHT PROCESS AROUND THIS.  
A RETAILER DOESN'T WANT TO DO  
SOMETHING THAT CREEPS YOU OUT.  
THE MINUTE THEY CROSS THE LINE,  
THEY GET THE WORST THING  
POSSIBLE FOR THEM WHICH IS YOU  
OPT OUT.

THE WORST THING FOR A RETAILER  
IS FAIR AMOUNT OF OPT OUTS, THEY  
WANT TO BE RELEVANT AND  
RESPONSIVE.

THE ONLY NOTION IS TO GIVE YOU  
SOMETHING MORE RELEVANT TO YOU  
SO YOU DON'T HAVE TO FILTER OUT  
THE NOISE THAT'S OUT THERE.

AND I THINK THAT THERE ARE  
CLEARLY SOME PRIVACY THINGS  
THAT NEED TO BE MONITORED AND  
WATCHED.

BUT ON BALANCE, I THINK MOST  
CONSUMERS ARE ELECTING TO OPT IN  
AS OPPOSED TO OPT OUT.

>> I THINK GENE SAID IT WELL.

THERE ARE A LOT OF RETAILERS OUT  
THERE, SEVERAL MILLION.

SO THERE'S A LOT OF CHOICE AND  
OPPORTUNITY FOR CONSUMERS.

AND TRUST IN THAT CONTEXT IS  
MORE THAN JUST ONE ELEMENT SUCH  
AS SHARING THIS DATA FLOW OR  
ANOTHER.

IT REALLY IS ABOUT DEVELOPING  
LOYALTY WITH THE CUSTOMER.

SO THE CUSTOMER TRUSTS IT IS  
RETAILER AND WANTS TO RETURN AND  
MAINTAIN THAT LOYALTY.

ONE EASY EXAMPLE.

THERE ARE COMPANIES OUT THERE  
THAT GATHER LIKE AMAZON, GATHER  
HUGE AMOUNTS OF DATA.

YET CONSUMERS KNOW THIS BECAUSE  
THEY SEE THE SIGN THAT SAYS IF  
YOU LIKED THIS ITEM, YOU MAY  
LIKE THAT ITEM.

THEY APPRECIATE THAT AND THEY GO  
BACK AND SHOP AGAIN AND AGAIN  
BECAUSE THEY TRUST AMAZON TO DO  
WHAT'S RIGHT BY THEM.

THAT'S WHAT OTHER STORES ARE  
AIMING FOR.

>> THE SPACE IS EXTRAORDINARILY  
COMPLEX.

NOT THAT THEY'RE INHERENTLY GOOD



AND EVIL ACTORS.

THE FACT EVERYTHING IS A LOT OF GRAY ZONE. THE OTHER THING I THINK IS IMPORTANT TO HIGHLIGHT IN THIS IS THAT WE OFTEN TALK ABOUT COMPANIES THAT WE'RE THINKING ABOUT HIGH-LEVEL BRANDS, BRANDS WE CAN HOLD ACCOUNTABLE AND RECOGNIZE.

BUT WE ALSO DEAL WITH DATA BROKERS WHOSE NAMES NOBODY RECOGNIZES WHO ARE HOLDING ON TO DATA, WHO ARE BUYING DATA AT BANKRUPTCY SITUATIONS, CAPTURING THINGS THAT AND PULLING TOGETHER DATA SOURCE WE DON'T EVEN KNOW WHY THE SPACE GETS VERY MURKY BECAUSE WE OFTEN TALK ABOUT IT WITHIN SPECIFIC SILOS RATHER THAN THE COMPLEXITY OF IT.

WASHINGTON TALKING ABOUT DATA SUPPLY CHAINS WHICH I THINK IS A WAY OF INTERESTINGLY THINK ABOUT IT, NOT A PERFECT METAPHOR BUT INTERESTING TO THINK ABOUT THAT. HOW WE START THINKING ABOUT HOLDING SUPPLY CHAINS ACCOUNTABLE WHEN WE'RE THINKING ABOUT THESE DATA ISSUES.

NOT JUST IN TERMS OF DATA BROKERS OF THE FTC IS LOOKING AT BUT IN TERMS OF OUR OWN BEHAVIORS AROUND THIS.

THE OTHER THING I THINK IS IMPORTANT TO HIGHLIGHT IS MANY COMPANIES, BIG NAMES, ARE TRYING TO DO THEIR BEST.

THEY'RE TRYING TO FIGURE OUT HOW TO HOLD THIS STUFF IN A RESPONSIBLE WAY.

BUT AS DAVID POINTS OUT THEY DON'T ALWAYS KNOW WHAT THE BEST PRACTICES SHOULD BE, WHERE THERE'S TREMENDOUS OPPORTUNITIES FOR MEANINGFUL CROSS-SECTOR COLLABORATION TO TRY TO FIGURE

THESE THINGS OUT.  
REGULATION IS ONE APPROACH, IT'S  
A VERY POWER STRONG ARMED  
APPROACH, COLLABORATION IS  
ANOTHER APPROACH TO THINK ABOUT  
HOW DO WE  
AND DIFFER PER SECTOR.  
AS MALARY POINTED OUT IT'S  
DIFFERENT WHEN WE TALK ABOUT  
RETAILERS THAN FINANCE AND  
CREDIT.  
WHAT DOES IT LOOK LIKE?  
HOW DO WE PULL THINGS TOGETHER?  
FINALLY, I WANT TO END WITH A  
PHILOSOPHICAL POINT, BILLIONS  
THE STATE OF BEING.  
THE NOTION OF A FACT IN A LEGAL  
SENSE EMERGED IN THE 1890s,  
MODERN CONCEPT.  
ANYBODY WHO LIVED THROUGH LAST  
ELECTION IN THIS COUNTRY SAW  
WE'RE A POST-FACT STATE.  
FOR BETTER OR WORSE, ONE THING  
THAT'S A NEW EQUIVALENT TO FACT,  
THINKING ABOUT PROBLEMISTIC UJS.  
THIS STUFF IS THATTER TO STAY.  
PART IS UNDERSTANDING WHAT  
PROBABLISTIC THINGS MEAN FOR THE  
ECOSYSTEM OF THE IN  
UNDERSTANDING THE SYSTEMS YOU  
REALIZE IT'S NOT CLEANLY FACT,  
IT'S ABOUT TRYING TO FIGURE OUT  
HOW TO DEAL WITH.  
THIS HOW DO YOU HOLD THOSE  
SYSTEMS ACCOUNTABLE AND THINK  
ABOUT THEIR ROLE IN THINGS LIKE  
RULE OF LAW IS GOING TO BE VERY,  
VERY MESSY.  
THIS IS WHERE I SAY THIS BECAUSE  
A LOT OF WHAT WE'RE DEALING WITH  
IN TERMS OF THE SYSTEMS WE'RE  
TRYING TO HOLD ACCOUNTABLE ARE  
PROBABLISTIC SYSTEMS WHICH ARE  
NOT INTENDED TO BE  
DISCRIMINATORY THAN THE SENSE IN  
THE NARRATIVE OF A FACT BUT ENDS

UP UNINTENTIONALLY DOING.  
SO I THINK IT'S REALLY IMPORTANT  
TO UNDERSTAND THAT  
PHILOSOPHICALLY BECAUSE THAT'S  
ONE OF THE THINGS WE NEED BROAD  
SPREAD LITERACY ON BEFORE WE RUN  
IN TO THE SYSTEMS WHERE WE JUST  
ASSUME TO TREAT THESE THING AS  
FACTS.

>> I WANT TO GO BACK TO THE  
ISSUE OF TRANSPARENCY,  
VISIBILITY, THAT'S A THEME THAT  
EMERGED IN MANY COMMENTS TODAY,  
OUR INQUIRY.

THE CHAIRMAN HAS PROPOSED  
LEGISLATION TO PROVIDE CONSUMERS  
ACCESS THE RIGHT TO CORRECT THE  
RECORD, THE RIGHT TO OPT OUT IF  
THEY DON'T WANT THEIR  
INFORMATION BEING USED FOR  
MARKETING.

AND THIS IS KIND OF A BASE LINE  
FOR TRANSPARENCY AND IT'S VERY  
INTERESTING TO HEAR ABOUT THESE  
ADDITIONAL NON-LEGISLATIVE  
TOOLS.

WE RECOGNIZE THIS IS A COMPLEX  
AND EVOLVING ISSUE AND ARE  
LOOKING FORWARD TO CONTINUING TO  
BE PART OF THE DIALOGUE ABOUT  
THE IMPACT OF BIG DATA ON  
CONSUMERS.

>> I WANT TO THANK EVERYBODY FOR  
PARTICIPATING IN THIS PANEL AND  
BRINGING THE DIFFERENT  
PERSPECTIVES THAT YOU HAVE.

I THINK ONE THING THAT SEEMS  
FAIRLY CLEAR IS THAT THERE IS NO  
SINGLE SOLUTION OR THERE'S NOT  
EVEN ANY SINGLE WAY TO LOOK AT  
THIS, THAT IT'S VERY MUCH  
SOMETHING THAT WE MUST LOOK AT  
THROUGH A MULTIFACETED LENS WHEN  
WE'RE TALKING ABOUT MARKETING  
CREDIT, SOCIAL MEDIA, AND ALL  
THESE OTHER TOPICS.

I HOPE WE WERE A LITTLE  
SUCCESSFUL IN LAYING, ASSESSING  
THE CURRENT ENVIRONMENT.  
BUT I KNOW THAT THE PANELISTS  
HERE COULD HAVE ACTUALLY  
PARTICIPATED ON ANY OF THE  
PANELS TODAY BECAUSE IT ALL DOES  
AS DANAH SAID, A LOT OF GRAY  
AREAS.  
SO THANK YOU VERY MUCH,  
EVERYONE.  
AND YOU NEED TO RETURN --  
[APPLAUSE]  
AUDIENCE MEMBERS, YOU NEED TO  
RETURN HERE AT 11:00.  
BUFF A 10-MINUTE BREAK.  
THERE IS A CAFETERIA BUT YOU  
CAN'T BRING ANY FOOD IN HERE.